CLAIMS

What I claim is:

1.   A floor mat comprising

a non-woven carpet pile substrate;

a pile material tufted into said non-woven carpet pile substrate which forms a pile surface on one side of said substrate; and

a vulcanized expanded rubber backing sheet of rubber integrated to the other side of the carrier fabric,

wherein said rubber backing sheet comprises a blowing agent to produce a closed

cell structure foam rubber;

and

optionally, solid vulcanized rubber reinforcement strips present along at least one of the borders of the mat;

wherein said floor mat possesses suitable flexibility to be laundered on a regular basis in a standard industrial washing machine without appreciably damaging said mat or said machine; and

wherein said non-woven carpet pile substrate possesses a heat shrinkage factor of from about 2.0 to about 2.5% and said rubber backing sheet possesses a heat shrinkage factor of from about 2.0 to about 2.5%.

2.   The floor mat of Claim 1 wherein

      at least one solid vulcanized rubber reinforcement strip is present and possesses a heat

shrinkage factor of from about 2.0 to about 2.5%.

3.   The floor mat of Claim 1 wherein

      said carpet pile substrate is comprised of natural or synthetic fibers; and

      said pile material is comprised of natural or synthetic fibers.

4.   The floor mat of Claim 1 wherein

      said carpet pile substrate is comprised of fibers selected from the group consisting

essentially of polyester, nylon, polypropylene, cotton, and blends thereof; and

      said pile material is comprised of synthetic fibers.

5.   The floor mat of Claim 1 wherein

      said carpet pile substrate is comprised of polyester fibers; and

      said pile material is comprised of 100% solution dyed nylon fibers.

6.   The floor mat of Claim 1 wherein

      said carpet pile substrate weighs from about 3.5 to about 4.5 ounces per square yard.

7.   The floor mat of Claim 1 wherein

said carpet pile substrate weighs from about 4.0 ounces per square yard.

8.   The floor mat of Claim 1 wherein

silica is added to the rubber backing sheet.

~~9.   The floor mat of Claim 1 wherein~~

~~said blowing agent forms a solid skin on the surface of the rubber covering the closed~~

~~cells of the foam rubber.~~

10.   The floor mat of Claim 1 wherein

said foam rubber backing sheet possesses a water absorption rate of below about 10%.

11.   A floor mat comprising

a non-woven carpet pile substrate;

a pile material tufted into said non-woven carpet pile substrate which forms a pile surface

on one side of said substrate;

a vulcanized expanded rubber backing sheet of rubber integrated to the other side of the

carrier fabric; and

optionally, solid vulcanized rubber reinforcement strips present along at least a plurality

of borders of the mat;

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wherein said floor mat possesses suitable flexibility to be laundered on a regular basis in

a standard industrial washing machine without appreciably damaging said mat or said machine;

wherein said non-woven carpet pile substrate possesses a shrinkage factor of from about

2.0 to about 2.5%; and

wherein both said rubber backing sheet and said vulcanized solid rubber reinforcement

strips possess a modulus strength of greater than about 1,000 pounds per square inch.

12.   The floor mat of Claim 11 wherein

said carpet pile substrate is comprised of natural or synthetic fibers; and

said pile material is comprised of natural or synthetic fibers.

13.   The floor mat of Claim 11 wherein

said carpet pile substrate is comprised of fibers selected from the group consisting

essentially of polyester, nylon, polypropylene, cotton, and blends thereof; and

said pile material is comprised of synthetic fibers.

14.   The floor mat of Claim 11 wherein

said carpet pile substrate is comprised of polyester fibers; and

said pile material is comprised of 100% solution dyed nylon fibers.

15.   The floor mat of Claim 11 wherein

said carpet pile substrate weighs from about 3.5 to about 4.5 ounces per square yard.

16.   The floor mat of Claim 11 wherein

said carpet pile substrate weighs from about 4.0 ounces per square yard.

17.   The floor mat of Claim 11 wherein

silica is added to the rubber backing sheet.